## Trophy hunting bans imperil biodiversity

Trophy hunting is under pressure: There are high-profile campaigns to ban it, and several governments have legislated against it (1). In the United States, the CECIL Act (2) would prohibit lion and elephant trophy imports from Tanzania, Zambia, and Zimbabwe and restrict imports of species listed as threatened or endangered on the Endangered Species Act. In addition to the United States, Australia, the Netherlands, and France have restricted trophy imports (1), and the United Kingdom is under pressure to follow. Calls for hunting bans usually cite conservation concerns. However, there is compelling evidence that banning trophy hunting would negatively affect conservation.

In African trophy hunting countries, more land has been conserved under trophy hunting than under National Parks (*3*) and ending trophy hunting risks land conversion and biodiversity loss (*4*). Poorly managed trophy hunting can cause local population declines (*5*), but unless better land-use alternatives exist, hunting reforms which have proved effective (*6*)—should be prioritized over bans (*7*). Positive population impacts of well-regulated hunting have been demonstrated for many species, including rhinos, markhor, argali, bighorn sheep, and many African ungulates (*7*).

Trophy hunting can also provide income for marginalized and impoverished rural communities (7). Viable alternatives are often lacking; opponents of hunting promote the substitution of photo-tourism, but many hunting areas are too remote or unappealing to attract sufficient visitors (8). Species such as lions fare worst in areas without photo-tourism or trophy hunting (9), where unregulated killing can be far more prevalent than in hunting zones, with serious repercussions for conservation and animal welfare (10). Focusing on trophy hunting also distracts attention from the major threats to wildlife.

The International Union for Conservation of Nature (IUCN), a global conservation authority, clearly concludes that "well managed trophy hunting can-and does-positively contribute to conservation and local livelihoods" (7). Although there is considerable room for improvement, including in governance, management, and transparency of funding flows and community benefits (11), the IUCN calls for multiple steps to be taken before decisions are made that restrict or end trophy hunting programs (7). Crucially, as African countries call for a New Deal for Rural Communities (12) that allows them to achieve the self-determination to sustainably manage wildlife and reduce poverty, it is incumbent on the international community not to undermine that. Some people find trophy hunting repugnant (including many of us), but conservation policy that is not based on science threatens habitat and

## biodiversity and risks disempowering and impoverishing rural communities.

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## SUPPLEMENTARY MATERIAL

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